

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	10/505,479	TAKAHASHI, YORIO	
	Examiner	Art Unit	
	Christopher R. Lamb	2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communication filed 18<sup>th</sup> October 2006.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
|---|--|

## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 1-10 allowed.
2. The following is an examiner's statement of reasons for allowance:

Regarding claim 1:

The closest prior art of record, Kanda et al. (US 6,304,528) discloses:

An information disk recording/reproducing device, in which recording or reproduction can be performed on an information disk having an information recording track formed like a spiral or a concentric circle, comprising:

a disk rotating unit for rotating an information disk (Fig. 3: 2);

a rotational position information output for outputting rotational position information based on information indicating a rotation angle of the disk rotating unit by dividing one rotation into m angular divisions (column 8, lines 40-55);

a reading unit for reading an information signal from an information disk (Fig. 3: 5);

a radius direction driving unit for driving the reading unit in a radius direction of an information disk (inherent);

a track cross detecting unit for detecting crossing of and generating a track cross signal based on a reproduction signal when the reading unit traverses an information recording track by the driving of the radius direction driving unit (Fig 3: 9);

a track cross direction detecting unit for detecting a direction of a track crossing caused by a crossing based on the reproduction signal when the reading unit traverses

Art Unit: 2627

an information recording track by the driving of the radius direction driving unit (Fig. 3: 13);

a counting unit for counting pulses of a track cross signal from the track cross detecting unit (Fig. 3: 10), with a code indicating a track cross direction from the track cross direction detecting unit, based on an output from the rotational position information output (column 8, lines 40-55); and

a control unit which rotates the disk rotating unit at a first speed, obtains a first counted value of the counting unit while not operating the radius direction driving unit (column 8, lines 20-25), rotates the disk rotating unit at one or more rotational speeds higher than a first rotational speed (column 8, line 65 to column 9, line 5), obtains a second counted value from the counting unit while not operating the radius direction driving unit (column 9, lines 25-30).

Kanda does not disclose:

comparing a predetermined threshold value to a vibration detection value as a function of a sum of absolute values of a difference between the first counted value and the second counted value.

The first part of this (comparing a predetermined threshold value to a vibration detection value) is obvious: Kanda does disclose calculating a vibration detection value and certainly comparing the value to a predetermined threshold would be obvious to one of ordinary skill in the art.

However, the vibration detection value of Kanda is not a function of a sum of absolute values of a difference between the first counted value and the second counted

Art Unit: 2627

value (Kanda does calculate a difference between the first counted values and the second counted values. Kanda also calculates a vibration detection value that is a sum of absolute values, as per column 11, lines 10-30. In Kanda, though, the absolute values are not the absolute values of the aforementioned difference results, but the absolute values of differential vectors between adjacent vectors that represent the difference results. This, although it sounds similar, is not mathematically equivalent.)

In short, Kanda discloses nearly every element of the claimed invention, but uses slightly more complicated means to calculate the final vibration detection value. This limitation in combination with the other limitations of the claim renders it allowable over the prior art of record.

Regarding claim 2:

This claim contains language similar to claim 1.

Regarding claims 3-5:

They are allowable due to their dependence on claim 1.

Regarding claim 6-10:

These are method claims corresponding to apparatus claims 1-5 and are similarly allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2627

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (572) 272-5264. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRL 11/9/06

  
WILLIAM KORZUCH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600